

UNPACKING INSTRUCTIONS



1. Unpack the Red Lion unit and verify the following components are enclosed for the RAM 9xxx RTU:
 - Unit and Quick Start Guide.
 - Power Supply, Antennas and accessories sold separately.



2. Contact your cellular provider (carrier) and request a data account. For EVDO models (RAM 96xx), give the ESN number of the router to the carrier to activate the data account. For LTE models (RAM 97xx) the carrier should provide you with a SIM card to insert into the router, along with the APN, username, & password for data connectivity.
3. Insert the SIM card (LTE models only):
 - Locate the SIM Card(s) & Battery panel on the bottom of the RTU. Open panel by removing single screw.
 - Insert the card as shown on the silkscreen next to the slot.
 - Push the SIM card in until it clicks. Close panel and secure with a single screw.
4. An antenna with an SMA-M connector should be connected to the RTU directly or via a coaxial cable. This antenna should meet the specifications listed below. Also see the Hardware & Installation Guide for more information on antennas.
 - 3G: Dual-band 800 & 1900 MHz
 - LTE: 700 MHz
 - Nominal 50 ohm impedance
 - Voltage Standing Wave Ratio (VSWR) less than 2.5:1
5. Power is supplied to the RTU via the 6-screw plug on the top. Device accepts 8-30 VDC power. (Power supply / transformer not included)



Power connector
(top of unit)

Pin	Name	Description
P1+	Power 1+	This is the primary power source input(+)
P1-	Power 1-	This is the primary power source input(-)
	Chassis Ground	Tie to the panel or chassis ground.
P2+	Power 2+	This is the secondary (backup) power source input(+)
P2-	Power 2-	This is the secondary (backup) power source input(-)
	Chassis Ground	Tie to the panel or chassis ground.

6. Please allow 1-2 minutes for the unit to recognize the

cellular unit and connect to the cellular network. When this has occurred the Signal Strength LEDs should light up (see table on back). If signal strength is not lit or flashes slowly, please refer to the User Manual at www.sixnet.com.

7. Connect to the Ethernet RJ45 port for network connectivity.

ACCESSING THE GRAPHICAL USER INTERFACE (GUI)

1. Connect PC to the RAM 9000 Unit

Connect an Ethernet cable or a USB Cable between the local PC and the unit's Ethernet 0 port (E0). Verify the link LED is lit.

2. Setup PC IP Address

For assistance with configuring your PC, see the appropriate Microsoft Windows support webpage listed at: <http://support.microsoft.com>.

PC to Ethernet Interfaces

Select "Use the following IP address" and fill in the blank fields with the information below:

	WAN/ETH0	LAN/ETH1
IP address	192.168.0.2	192.168.1.2
Subnet mask	255.255.255.0	255.255.255.0
Default gateway	192.168.0.1	192.168.1.1
Preferred DNS	192.168.0.1	192.168.1.1

3. Access Graphical User Interface

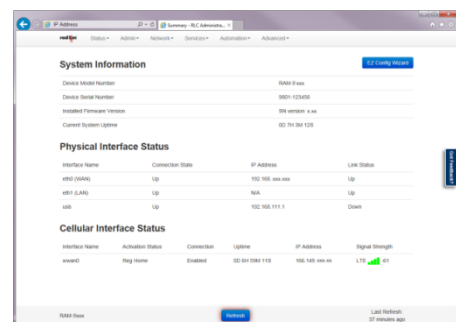
Open a web browser and enter the following in the address bar:

- WAN/ETH0: <http://192.168.0.1:10000/>
- LAN/ETH1: <http://192.168.1.1:10000/>
- USB: <http://192.168.111.1:10000/>

LOGIN INSTRUCTIONS

- User Name enter:
admin (lowercase letters)
- For Password enter:
last six digits of the unit serial number (lowercase)

Upon successfully logging in you will see the following screen:



You are now connected to the Management GUI. If you should see anything other than the GUI screen shown, please refer to the Red Lion RAM 9000 Series User Manual located at: www.sixnet.com.

**VERIFY CELLULAR CONNECTIVITY**

Confirm the following on the GUI (see *Figure B*) after logging into the unit:

Activation: "Succeeded" or "Unavailable"

Connection: "Enabled"

IP Address: Populated with a network IP address

Signal Strength has GREEN bars populated. If you see any RED bars represented under the Signal Strength graphics, please consult the User Manual. Ethernet (Eth0) should show "Up" and show the network issued IP address.

NOTE: If "Unavailable" and connection "Unknown" browse to the **Status** → **EZ Config Wizard** or **Network Tab** → **Cellular Connection** → **Configuration** and input the APN field. EVDO models will automatically try to activate on a periodic basis.

If you were unable to confirm this status on the Main page, please refer to the RAM 9000 Software Guide for troubleshooting steps at www.sixnet.com.

For more information to set up Modbus features, please refer to the RAM 9000 User Guide available at www.sixnet.com.

If you are able to confirm this status, then your unit is successfully connected to the cellular network.

RED LION WIRELESS TECHNICAL SUPPORT

If you have followed all of the instructions up to this point, have verified with your carrier that you are not having an authentication problem, have verified that you have adequate cellular signal reception, and your unit is still not communicating, then it is time to contact Red Lion Wireless Technical Support at support@redlion.net or 1-877-432-9908 and we will be happy to assist you in getting your unit operational.

HARDWARE STATUS LEDs

LED	State	Description
P1/P2	ON	Power is applied to the associated input
	OFF	Power is not being applied to the associated input
GPS	ON	Position fix available
	OFF	No position fix available
RESET	ON	Unit is booting. Not Ready
	OFF	Unit is functioning normally
WAN	ON	Cellular connection is established
	OFF	Cellular Connection is not established
STATUS	ON	Unit is booting up.
	OFF	Normal operation
	FLASH	Unit entering reflashing mode. Do not disturb.
	STROBE	System errors Contact Red Lion support.

*See the RAM 9000 Series Hardware & Installation Guide for more information on LEDs.

INSTALLATION AND HAZARDOUS AREA WARNINGS

All power, input and output (I/O) wiring must be in accordance with Class I, Division 2 wiring methods and in accordance with the authority having jurisdiction.

Suitable for use in Class I, Division 2, Groups A, B, C and D hazardous locations, or non-hazardous locations only.

WARNING – EXPLOSION HAZARD – SUBSTITUTION OF COMPONENTS MAY IMPAIR SUITABILITY FOR CLASS 1, DIVISION 2.

WARNING – EXPLOSION HAZARD – WHEN IN HAZARDOUS LOCATIONS, DISCONNECT POWER BEFORE REPLACING OR WIRING MODULES.

WARNING – EXPLOSION HAZARD – DO NOT DISCONNECT EQUIPMENT UNLESS POWER HAS BEEN SWITCHED OFF OR THE AREA IS KNOWN TO BE NONHAZARDOUS.

WARNING – EXPLOSION HAZARD – BATTERIES MUST ONLY BE CHANGED IN AN AREA KNOWN TO BE NON-HAZARDOUS.

These products are operator interface units to be used within control panels. These devices are intended for use in Class I, Division 2, Hazardous Locations, industrial control applications. The enclosure shall be suitable for the location.

A minimum IP54 rated enclosure is needed for ATEX unless an equivalent degree of protection is supplied by the location. These products are to be used within control panels in hazardous locations. The enclosure shall be suitable for this location. Hot-swapping is not for use in hazardous locations.

AVERTISSEMENTS POUR INSTALLATION ET ENDROITS DANGEREUX

Tout courant, câblage entrée et sortie (I / O) doit être conforme aux méthodes de câblage à la Classe I, Division 2 et conformément à l'autorité compétente.

Cet appareil est adapté pour utilisation en Classe I, Division 2, Groupes A, B, C, D endroits dangereux ou endroits non-dangereux.

AVERTISSEMENT – RISQUE D'EXPLOSION – LA SUBSTITUTION DE TOUT COMPOSANT PEUT NUIRE À LA CONFORMITÉ DE CLASSE I, DIVISION 2

AVERTISSEMENT – RISQUE D'EXPLOSION – LORSQUE DANS DES ENDROITS DANGEREUX, DÉBRANCHEZ LE CORDON D'ALIMENTATION AVANT DE REMPLACER OU DE BRANCHER LES MODULES.

AVERTISSEMENT – RISQUE D'EXPLOSION – NE DÉBRANCHEZ PAS L'ÉQUIPEMENT À MOINS QUE L'ALIMENTATION AIT ÉTÉ COUPÉE OU QUE L'ENVIRONNEMENT EST CONNU POUR ÊTRE NON DANGEREUX.

WARNING – RISQUE D'EXPLOSION - LES BATTERIES DOIVENT ÊTRE REMPLACÉES DANS UNE ZONE CONNUE COMME ÉTANT NON-DANGEREUSE.

Ces produits sont des unités d'interface opérateur qui doivent être utilisés à l'intérieur des panneaux de commande. Ces appareils sont destinés à une utilisation en Classe I, Division 2, zones dangereuses, applications de contrôle industriel. L'enclos doit être adapté à l'environnement lieu.

Un boîtier IP54 minimum est nécessaire pour ATEX à moins qu'un degré équivalent de protection est fourni par l'emplacement. Lorsque dans des endroits dangereux, ces produits doivent être utilisés dans des panneaux de contrôle. Pas de remplacement à chaud des modules dans les zones dangereuses.